

# STATE OF CONNECTICUT

DEPARTMENT OF PUBLIC HEALTH  
DRINKING WATER SECTION

## **GUIDE TO WATER QUALITY MONITORING AND PRECOMPLIANCE SCHEDULES**

### **Introduction**

The Connecticut Department of Public Health Drinking Water Section (DWS) provides Water Quality Monitoring and Precompliance Schedules to assist owners and operators of Public Water Systems (PWS) in maintaining compliance with the water quality monitoring requirements of Section 19-13-B102 of Regulations of Connecticut State Agencies. The Schedule may not necessarily indicate all of the PWS's monitoring obligations (i.e. repeat and confirmation sample requirements, and consent orders). If there are any changes in sampling frequencies that are not specified in the regulations, the PWS will be informed in writing by the DWS. Any inaccuracies in the Schedule will not relieve the owner or operator of the requirement to maintain compliance with the applicable regulations. Please contact the Monitoring, Reporting and Enforcement Unit at (860) 509-7333 with any questions or concerns.

### **Schedule Content**

The Water Quality Monitoring and Precompliance Schedule consists of four (4) major sections:

- 1) Water Quality Monitoring Requirements;
- 2) Monthly Water System Facility (WSF) Level Monitoring Requirements;
- 3) Water System Facility Information; and
- 4) Contact Information.

Each Section is detailed below.

### **Water Quality Monitoring Requirements**

This Section lists the water quality monitoring requirements for each Water System Facility (WSF) and corresponding Sampling Point at the subject PWS. If a specific Sampling Point has not been identified, the PWS may *Select from the Inventory of Approved Sampling Points* listed in the Sampling Point Inventory Section of the Schedule for that Water System Facility (see description below). When reporting water quality monitoring results, an active WSF ID and Sampling Point ID must be indicated for each sample or the results will not be accepted by the DWS.

The monitoring requirements for each WSF and Sampling Point are further described below:

**Analyte / Analyte Group:** The Analyte or group of Analytes that must be monitored for compliance. See Appendix A of the EDI Standard Operating Procedures Manual for a complete list of Analytes and Analyte Groups

**Monitoring Requirement:** The number of samples that must be collected and the collection frequency.

**Monitoring Period:** The specific period during which samples must be collected for compliance. For example, if a PWS is required to monitor for Total Coliform at a frequency of one (1) sample every month, each applicable monthly monitoring period will be indicated. **The Water Quality Monitoring a Precompliance Schedule is designed to provide past, current and future monitoring requirements and is therefore not based on a calendar year.**

**Seasonal Collection Period:** Some rules, such as the Lead and Copper Rule and the Stage 1 Disinfectants and Disinfection Byproducts Rule, require samples to be collected during a specific period within the monitoring period. If a Seasonal Collection Period is indicated, all samples must be collected during this period to be considered for compliance. The Seasonal Collection Period also applies to Public Water Systems that operate on a seasonal basis (for example, systems only open to the public April 1 – September 30 annually).

**Sample Results Received:** Indicates that complete sample results for the Analyte or Analyte Group for the Monitoring Period indicated have been submitted by the PWS and entered into the Safe Drinking Water Information System / State Version (SDWIS) as of the Schedule Generation Date. **Public Water Systems that do not submit water quality results via Electronic Data Interchange (EDI) should expect a short lag between the date the results were submitted and the date results were entered into SDWIS.**

### **Monthly Water System Facility (WSF) Level Monitoring**

This section indicates Water System Facility (WSF) contaminant level requirements that are specific to a Public Water System based on regulation or individual treatment system approvals issued by the DWS. If the Public Water System does not have any specific levels set, this section will not appear on the Schedule. Please contact the Monitoring, Reporting and Enforcement Unit at (860) 509-7333 with any questions or concerns about the listed requirements.

The requirements in this section are summarized below:

**Analyte:** The Analyte that must be monitored for compliance.

**Description of Requirement:** A description of the monitoring requirement and sampling location.

**Samples Required/Month:** The number of samples that are required to be collected on a monthly basis.

**Operating Limits:** The limit that has been established for the Analyte at the Water System Facility Sampling location.

**Summary Type:** The Summary Type is a code used to assist Public Water Systems with the reporting of the summary information. **The code indicated on the Schedule will match a Summary Type code on the appropriate Water Quality Reporting Form.**

### **Water System Facility Information**

This section contains basic information on Water System Facilities that have been inventoried for the Public Water System. Examples of facilities that may be listed include: Wells, Reservoirs, Treatment Plants, Entry Point Sampling Stations, Storage Tanks and Distribution Systems. This section has been further organized into two (2) subsections.

### **Certified Operator Information**

This subsection lists the designated chief operator and any assigned operator for each Community and Non-Transient Non-Community PWS's classified Water System Facility. The PWS and certified operator should review this information for accuracy. The [Operator Verification Form](#) shall be used to make any modifications or deletions to the operators listed on the schedule. *Please contact the Operator Certification Program Unit at (860) 509-7333 with any questions or concerns regarding the operator assignments listed in the schedule.*

### **Sampling Point Inventory**

The Sampling Point Inventory is a list of all available sampling point locations for the water system facility indicated at the subject PWS that have been reported to the DWS via Sampling Site Plans. The Water System Facility ID (WSF ID) and the Sampling Point ID must be accurately identified for each sample reported to the DWS. The Sampling Point Inventory information is described below:

**Sampling Point ID:** An alpha-numeric identification code assigned to a specific Sampling Point location within the subject Water System Facility. Sampling Point IDs are limited to 11 characters in length.

**Sampling Point Description:** A general description of the location of the Sampling Point. Sampling Point Descriptions are limited to 20 characters in length.

**Status:**

- A: Active - The Sampling Point has been accepted by the DWS and must be used to report sample results when appropriate.
- P: Proposed - The Sampling Point has been proposed by the PWS but not yet accepted by the DWS and may not be used to report sample results. See the generic sampling points below for available reporting options.
- I: Inactive - Sampling Point is no longer a valid sampling location but may have been used historically.

**TCR Sampling Location:** Indicates if Sampling Point location may used to collect samples for compliance with the Total Coliform Rule.

**Lead and Copper Rule Tier:** If a Tier is identified, the Sampling Point location may be used to collect samples for compliance with the Lead and Copper Rule. For an explanation of the different Tiers, please refer to RCSA Section 19-13-B102(e)(8)(A).

**Sampling Point Type:**

- DS: Distribution System
- EP: Entry Point
- FC: First Customer
- MD: Midpoint in Distribution System (Average Residence Time)
- MR: Maximum Residence Time
- RW: Raw Water Source

In some cases, generic sampling point locations have been assigned by the DWS to simplify the reporting process. Public Water Systems must report water quality results using the generic sampling points until the reported Sampling Points have been accepted or a Sampling Site Plan has been approved by the DWS in writing. The following is a list of the established generic sampling points:

<u>Generic Sampling Point ID</u>	<u>Sampling Point Location</u>
1	Reservoir
2	Well
3	Entry Point
4	Generic Distribution
5	Combined Filter Effluent

Public Water Systems will have a generic Distribution System Sampling Point (Sample Point ID 4) available at all times. This generic location may be used to report Total Coliform Repeat samples when the upstream or downstream sampling locations are not specifically listed in the Sampling Point Inventory.

The [Sampling Point Inventory Reporting Form](#) shall be used to make any modifications or deletions to the Sampling Point Inventory. Please contact the Monitoring, Reporting and Enforcement Unit at (860) 509-7333 with any questions or concerns regarding the Sampling Points listed in the Schedule.

## **Reporting of Water Quality Results**

Electronic reporting and record keeping have a strong mandate in policy and law. Submission and storage of electronic data in lieu of paper documents greatly reduces the cost for both sender and recipient, improves data quality by automating quality control functions, eliminates re-keying, and greatly improves the speed and ease with which the data can be accessed by all who need to use it.

Therefore, in accordance with RCSA Section 19-13-B102(h)(4), effective January 1, 2006, all public water systems are required to submit through their certified contracted or in-house water quality testing laboratory all applicable water quality data electronically to the DWS in the format approved by the DWS.

The following information is available on the DWS Website:

- EDI Consultants
- EDI Laboratories
- EDI Seminar Information (10/18/2005)
- EDI Standard Operating Procedures Manual

On a case-by-case basis, the DWS may approve the hardcopy submittal of water quality analytical data due to technical difficulties. The PWS or laboratory must notify the DWS and receive approval prior to submitting any hardcopies. Facsimile machines are not a reliable or authorized medium for the routine submission of regulatory compliance information. Faxed water quality data submitted on the approved standard reporting forms will only be accepted if specifically requested by DWS staff. Any water quality data submitted in a different format will not be accepted by the DWS and will be returned to the Public Water System's Administrative Contact. The standard forms are available on the DWS's web page at <http://www.dph.state.ct.us/BRS/Water/DWS.htm>.

The information on the following forms cannot be accepted via EDI:

1. Monthly Treatment Effluent Monitoring and Reporting Form
2. Surface Water Treatment Combined Filter Effluent Turbidity Monitoring and Reporting Form
3. Surface Water Treatment Individual Filter Effluent Turbidity Monitoring and Reporting Form
4. Surface Water Treatment Entry Point and Distribution Chlorine Residual Monitoring Form
5. Surface Water Treatment Distribution System Disinfectant Residual Monitoring Form
6. Chlorine Dioxide and Chlorite Monitoring and Reporting Form

7. Chlorine Dioxide and Chlorite Monitoring and Reporting Form – Exceedance Attachment
8. Total Organic Carbon Monitoring and Reporting Form (Compliance Information ONLY, Individual Analytical Results may be submitted via EDI)

These forms shall be emailed to the Drinking Water Section for processing in accordance with the procedures established in the EDI Standard Operating Procedures Manual.

Results of all tests must be submitted to the DWS within nine (9) days following the end of the month in which the tests were performed. If testing is not completed during the required monitoring period, and/or results are not submitted as outlined, an Administrative Order with civil penalty may be issued to the Public Water System.

### **Water Quality Monitoring and Precompliance Schedule Updates**

The DWS intends to update the Water Quality Monitoring and Precompliance Schedules posted on the Internet (<http://www.dph.state.ct.us/BRS/Water/DWS.htm>) between the 15<sup>th</sup> and 20<sup>th</sup> of each month. The lower left corner of each page of the schedule is stamped with a “Schedule Generation Date” indicating the day the information was extracted from SDWIS/State. Public Water System owners and/or operators are encouraged to review the updated Water Quality Monitoring Schedule frequently and contact the Monitoring, Reporting and Enforcement Unit at (860) 509-7333 with any questions or concerns.

The schedules are available in two (2) formats; Adobe Acrobat PDF and Microsoft Access.

#### **Adobe Acrobat PDF**

The Adobe PDF documents are sorted by Town name and PWS Classification. At a minimum, Adobe Acrobat Reader is required to view PDF files. Links to download a free copy of Adobe Acrobat Reader are located throughout the DWS website.

#### **Microsoft Access**

Users must have Microsoft Access 2000 or equivalent applications installed locally in order to view the MSACCESS version of the schedules. The users may search for an individual schedule by PWS ID or PWS Name. Where advanced user may wish to view or evaluate more than one schedule (i.e. a laboratory’s client listed or a certified operator’s assigned water systems), the information in table “tbl\_PWS\_CLIENT\_LIST” may be modified to include only the PWS IDs of the desired public water systems. The DWS suggests that the modified version of this table be stored locally and imported into the Water Quality Monitoring and Precompliance database every time an updated version is downloaded from the website.

The Water Quality Monitoring and Precompliance database has also been preloaded with a selection of queries designed to assist Public Water Systems, laboratories and certified operators in reviewing the compliance status or inventory information for the PWS IDs identified in “tbl\_PWS\_CLIENT\_LIST”. A brief description of each query is available in the database.

